

Att'y Ref. No.: 003-126

U.S. App. No.: 10/808,490

IN THE CLAIMS:

Kindly rewrite Claims 1-17 as follows:

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1. (Currently Amended) A seal arrangement for reducing the seal gaps within a rotary flow machine, the seal arrangement comprising:

rotor blades and guide vanes arranged in at least one rotor blade row and at least one guide vane row, respectively, ~~each row including a fastening contour, and each rotor blade and guide vane having blade roots and vane roots which protrude into fastening contours within are fastened to the rotor blade rows and guide vane rows, respectively;~~

the blade roots and vane roots each having a respective platform;

a sealing element comprising a plastically deformable material positioned

between at least two platforms of adjacent blade roots and vane roots

along a rotor blade row, or

along a guide vane row, or

~~between a platform of a blade root or of a vane root and a rotary flow machine component when directly adjoining the platform;~~

the sealing element being firmly connected to at least one platform and having a thickness protruding from the surface of the at least one platform;

said at least two adjacent platforms or said platform and said component when directly adjoining the platform enclose a cold gap s_c in a cold condition and a hot gap s_w in a hot condition during operation of the rotary flow machine.

2. (Currently Amended) The seal arrangement as claimed in claim 1, wherein the sealing element is connected to the platform with ~~by brazing, soldering, or bonding a brazed connection, soldered connection, or bonded connection.~~

3. (Previously presented) The seal arrangement as claimed in claim 1, wherein the sealing element is applied to a platform as a layer material by a precipitation process; and
wherein the sealing element and said platform form a metallurgical combination.

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4. (Previously presented) The seal arrangement as claimed in claim 3, wherein the sealing element is configured and arranged as a layer material capable of being applied by flame spraying, galvanic precipitation, or by plating onto the platform.
5. (Previously presented) The seal arrangement as claimed in claim 1, wherein the plastically deformable material comprises a sintered metal, a metal foam, or a porous metallic coating.
6. (Previously presented) The seal arrangement as claimed in claim 5, wherein the sintered metal comprises a homogeneously baked combination from NiAl, FeAl, or CoAl.
7. (Previously presented) The seal arrangement as claimed in claim 5, wherein the metal foam comprises at least one element selected from the group consisting of Ni, Co, Al, and combinations thereof.
8. (Previously presented) The seal arrangement as claimed in claim 5, wherein the porous metallic coating comprises MCrAlY, wherein M is a metal selected from the group consisting of Ni, Co, and Fe.
9. (Previously presented) The seal arrangement as claimed in claim 1, wherein $s_w \ll s_c$.
10. (Previously presented) The seal arrangement as claimed in claim 1, wherein the sealing element is configured and arranged so that, when a contact pressure present between two platforms or between the platform and said component when directly adjoining the platform is exceeded in the hot condition of the rotary flow machine, the sealing element deforms plastically in order to form a minimum hot gap S_w .

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11. (Previously presented) The seal arrangement as claimed in claim 10, further comprising:

a seal gap enclosed by both platforms or by the platform and the component when directly adjoining the platform, the seal gap defining a plane; and

wherein the sealing element is configured and arranged so that the plastic deformation of the sealing element takes place substantially laterally relative to the plane of the seal gap.

12. (Previously presented) The seal arrangement as claimed in claim 1, wherein the rotor blades and guide vanes each comprise an aerofoil, and wherein the sealing element has a wedge-shaped portion including a thicker wedge end oriented to be facing toward the aerofoils.

13. (Previously presented) The seal arrangement as claimed in claim 1, wherein the rotor blades and guide vanes each comprise an aerofoil, and wherein the platforms or the platform and the component when directly adjoining the platform have a contour protruding into one another, the sealing element positioned at least on a contour part facing toward the aerofoils.

14. (Previously presented) The seal arrangement as claimed in claim 1, further comprising:

at least one cooling duct opening from the platform in the region of the sealing element.

15. (Previously presented) The seal arrangement as claimed in claim 1, further comprising:

a sealing protrusion on the platform opposite the sealing element.

16. (Previously presented) The seal arrangement as claimed in claim 1, further comprising:

said component of the rotary flow machine adjoining the platform including an

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intermediate piece comprising a distance piece or a heat insulation segment.

17. (Previously presented) The seal arrangement as claimed in claim 1, wherein said rotary flow machine comprises an axial turbomachine.

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